USER MANUAL

OXYGEN MONITOR

Model: PM5900



SAVE THESE INSTRUCTIONS

(For latest revision, go to www.precisionmedical.com)



Federal (USA) law restricts this device to sale by or on the order of a physician.

PRECISION MEDICAL.

300 Held Drive Northampton Pa 18067 (USA)

ISO 13485 Certified

Tel: (+001) 610-262-6090

Fax: (+001) 610-262-6080 Toll Free Tel: 800-272-7285

Toll Free Fax: 800-353-1240

www.precisionmedical.com

Contents

RECEIVING/INSPECTION	1
INTENDED USE	1
OPERATOR PROFILE	1
READ ALL INSTRUCTIONS BEFORE USING	1
SAFETY INFORMATION - WARNINGS AND CAUTIONS	2
SPECIFICATIONS	4
COMPONENT DESCRIPTION	5
OXYGEN MONITOR IDENTIFICATION	5
OXYGEN MONITOR LCD DISPLAY IDENTIFICATION	7
OXYGEN SENSOR COMPONENT IDENTIFICATION	8
BATTERY INSTALLATION	9
BATTERY INSTALLATION DIAGRAM	9
OPERATING INSTRUCTIONS	9
QUICK SETUP GUIDE	10
SENSOR INSTALLATION	10
CALIBRATION	11
EFFECTS OF TEMPERATURE:	11
EFFECTS OF HUMIDITY:	12
EFFECTS OF PRESSURE:	12
EFFECTS OF ANESTHETIC GASES:	12
ALARMS	13
TO SET ALARM	13
ALARM SITUATION:	14
CLEANING	14
MAINTENANCE	14
SENSOR REPLACEMENT	14
BATTERY REPLACEMENT	15
RETURNS	15
DISPOSAL INSTRUCTIONS	15
TROUBLESHOOTING	15
REPLACEMENT PARTS	17
ACCESSORIES	17

RECEIVING/INSPECTION

Remove the Precision Medical Oxygen Monitor from the packaging and inspect for damage. If there is any damage, DO NOT USE and contact your Provider.

INTENDED USE

Precision Medical, Inc. Oxygen Monitor provides continuous, direct monitoring of oxygen mixtures in a wide variety of medical applications such as anesthesiology (e.g., anesthesia machines), respiratory devices (e.g., respirators, ventilators, pediatric incubators), and oxygen therapy (e.g., oxygen tents).

OPERATOR PROFILE

The oxygen monitor is to be used by trained healthcare professionals under the supervision, or on the order, of a physician in a hospital (or other clinical setting). The Precision Medical, Inc. Oxygen Monitor is not intended for transport use. This device is not an oxygen supply source.

READ ALL INSTRUCTIONS BEFORE USING

This manual instructs a Professional to install and operate the Oxygen Monitor. This is provided for your safety and to prevent damage to the Oxygen Monitor. If you do not understand this manual, DO NOT USE the Oxygen Monitor and contact your Provider.

SAFETY INFORMATION - WARNINGS AND CAUTIONS



DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

	Direct current
C UL US	PM5900 WITH RESPECT TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH UL60601-1, IEC60601-1, CAN/CSA C22.2 No. 601.1
i	Consult Accompanying Documents
	Audio Alarm Paused
	Locked
4	Low Battery Indicator
	This device may contain electrical components that are hazardous to the environment. DO NOT dispose device into standard trash. Contact your local waste management for disposal of Electronic Equipment.
RONLY	Caution! U.S. Federal Law restricts this device to sale by or on the order of a physician.



This product is not intended as a life-sustaining or life-supporting device.

\wedge

WARNING

- Only trained, qualified medical personnel under the direct supervision of a licensed physician should operate the Oxygen Monitor.
- Use this Oxygen Monitor only for its intended use as described in this manual.
- Medical Oxygen should meet the requirements of USP.
- Always follow ANSI and CGA standards for Medical Gas Products, Flowmeters, and Oxygen Handling.
- The Oxygen Monitor should be serviced by a qualified hospital/dealer service technician, or by Precision Medical, Inc.
- DO NOT obstruct the alarm grill on the back of the Oxygen Monitor.
- DO NOT use near any type of flame or flammable/ explosive substances, vapors or atmosphere.
- DO NOT allow an excess length of cable near the patient's head or neck, this could result in strangulation. Secure excess cable to bed rail or suitable object.
- DO NOT use Oxygen Monitor with a cable that appears worn, cracked or has damaged insulation.

CAUTION

- The Oxygen Monitor contains magnetic, ferrous material that may affect the results of an MRI.
- Store the Oxygen Monitor in a clean, dry area when not in use.
- DO NOT use if dirt or contaminants are present on or around this Oxygen Monitor or connecting devices.
- DO NOT smoke in an area where oxygen is being administered.
- DO NOT clean with aromatic hydrocarbons.
- DO NOT steam autoclave.
- DO NOT gas sterilize with (EtO) Ethylene Oxide.
- DO NOT immerse Oxygen Monitor or Sensor in liquid.

SPECIFICATIONS

Base Device Specifications

Dimensions (Monitor without cable and sensor attached):

Length: 1.72" (4.36 cm)
Width: 3.56" (9.04 cm)
Height: 5.44" (13.82 cm)

Cable Length: 10 ft. (3.05m) (fully extended)

Weight:

Device Weight: 1.11 lbs (0.50 kg)

(includes: monitor, sensor, batteries and cable)

Shipping Weight: 1.64 lbs (0.75 kg)

Operating Conditions:

Temperature: 50°F- 113°F (10°C - 45°C)
Altitude: Sea Level to 8000 feet

Storage Conditions:

Temperature: 5°F - 122°F (-15°C- 50°C)
Humidity: 0 - 95% non-condensing

Mode of Operation: Continuous

Electrical Classification: Internally powered Medical Electrical equipment

Degree of protection against ingress of liquids: IPX1

Power Requirements: 4, AA Alkaline Batteries (4 x 1.5 Volts) 6 VDC

Battery Life: approximately 2000 hours

(continuous use non-alarm condition)

Diverter Fitting: fits industry standard, 15 mm "T" adapter

Measurement Range: 0.0 - 100%

Resolution: 0.1 Increments

Accuracy & Linearity: ± 1% of full scale at constant temperature, R.H.

and pressure when calibrated at full scale

Total Accuracy: ± 2.5% Actual Oxygen Level over full operating

temperature range

Response Time: 90% of final value in less than 12 seconds at

77°F (25°C)

Warm-up Time: none required

Low Battery Indication: Low battery icon displayed on graphics

screen, and audible alarm

Alarm System: high/low alarms, respective flashing red LEDs

and graphics, 68db audible alarm @ 1 meter

Low Alarm Range: *15% - 99% Oxygen

(*Requires extra action to set below 18%)

High Alarm Range: 18% - 100% Oxygen

High Alarm De-Activation Setting: Above 100% ("---" will appear)

Alarm Accuracy: Displayed value +/- 0.1

Patient Contact: Indirect contact via gas passing through sensor

sampling site.

Sensor Specifications

Sensor Type Precision Medical 504877 galvanic oxygen

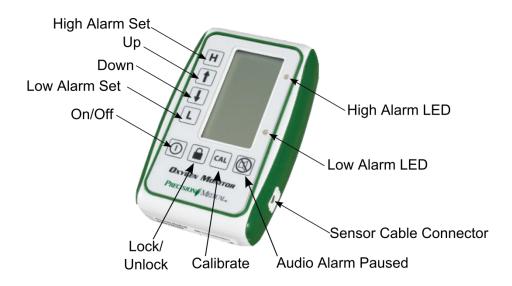
sensor (fuel cell)

Expected Sensor Life > 1,000,000 O2 % Hours

Specifications are subject to change without notice.

COMPONENT DESCRIPTION

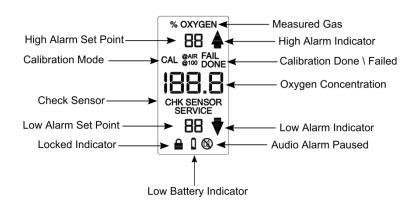
OXYGEN MONITOR IDENTIFICATION



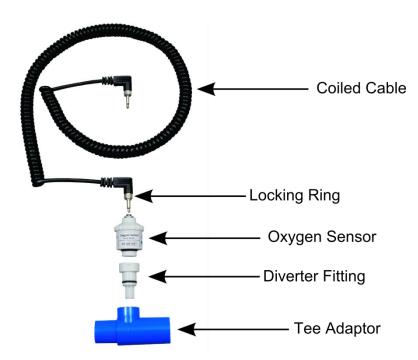
ITEM NAME	DESCRIPTION
Power Key	The Power Key turns the Oxygen Monitor ON and OFF. The Lock/Unlock Key must be pressed to unlock the Oxygen Monitor, before being powered OFF.
Lock /Unlock Key	Pressing the Lock/Unlock Key will "Unlock" the keypad, so changes in the stored settings can be made. When pressing the key to "Lock" the Oxygen Monitor disables the key pad, and no changes can be made.
Alarm Pause Key	In alarm condition, pressing the Audio Alarm Paused Key will deactivate the audible alarm for 120 seconds. The visual alarm will continue to display.
Calibration Key	Pressing the Calibration Key calibrates the Oxygen Monitor with air or oxygen.
Low Alarm Key	Pressing Low Alarm Key when the keypad is unlocked, the Low Alarm set point will flash. The Low Alarm setting can be adjusted with the UP/DOWN keys. When the Low Alarm value is changed, pressing the key will save the setting. The Oxygen Monitor will also save the setting and revert to normal operation if no keys are pressed within 10 seconds. The Low Alarm Set is adjustable down to 18% Oxygen. NOTE: Factory Preset = 18% Oxygen.
Low Alarm LED	During a Low Alarm condition, the red LED will flash accompanied by the triple pulse audible alarm.

ITEM NAME	DESCRIPTION	
High Alarm Key	Pressing the High Alarm Key when the keypad is unlocked, the high alarm set point will flash. The high alarm setting can be adjusted with the UP/DOWN keys. When the high alarm value is changed, pressing the key will save the setting. The Oxygen Monitor will also save the setting and revert to normal operation if no keys are pressed within 10 seconds. The High Alarm Set is adjustable up to 100% Oxygen. To disable the HIGH Alarm, raise the HIGH Alarm setting above 100%. Dashes () will be displayed next to the UP key on the LCD display.	
	NOTE: When the High alarm is disabled dashes () will appear next to the UP key on the LCD display, the Low alarm will still function. NOTE: Factory Preset = 50% Oxygen.	
High Alarm LED	During a High Alarm condition, the red LED will flash accompanied by the triple pulse audible alarm.	
UP/Down Keys	The Up/Down Keys are used in conjunction with the alarm set keys. Pressing either of these keys will change the alarms set points by 1% increments or 5% if held down continuously.	
Sensor Cable Connector	Cable Interface connection between Oxygen Monitor and Oxygen Sensor Cable.	

OXYGEN MONITOR LCD DISPLAY IDENTIFICATION



OXYGEN SENSOR COMPONENT IDENTIFICATION



ITEM NAME	DESCRIPTION	
Coiled Cable with Male Plugs	The Coiled Cable allows the Sensor to be positioned up to 10 ft from the side of the Oxygen Monitor. There are Male Plugs at each end of the Coiled Cable.	
Locking Ring	Male Plugs have a Locking Rings and must be engaged when in use.	
Oxygen Sensor	Galvanic Oxygen Sensor	
Diverter Fitting	Fitting used to connect to the Oxygen Source.	
Tee Adaptor	The Tee Adaptor is used to connect the Oxygen Sensor and Diverter Fitting to an oxygen pathway circuit. Note: The Tee Adaptor is intended for single patient	
	use only.	

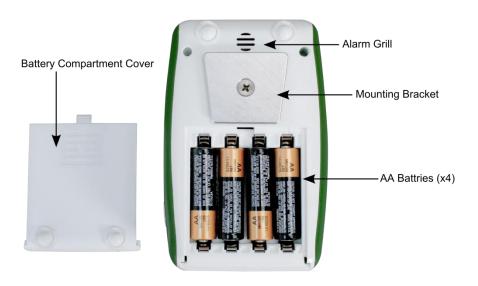
BATTERY INSTALLATION



Use ONLY AA Alkaline Batteries

- 1. Press down the center, top edge of the battery cover and slide down.
- 2. Remove old batteries, if applicable.
- 3. Install 4 AA Alkaline Batteries, and follow the diagram stamped in the bottom of the battery compartment.
- 4. Slide the battery cover back into position until the cover snaps on to the Monitor.

BATTERY INSTALLATION DIAGRAM



OPERATING INSTRUCTIONS



Inspect the Oxygen Monitor, Sensor and Cable for visual damage before use, DO NOT USE if damaged.

MARNING

Read this User Manual before installing or operating the Oxygen Monitor.

QUICK SETUP GUIDE

- 1. Install 4 AA Alkaline Batteries.
- 2. Connect the Oxygen Sensor and Diverter Fitting.
- 3. Connect the Coiled Cable.
- 4. Calibrate the Oxygen Monitor.
- 5. Set the High/Low Alarms.

SENSOR INSTALLATION

CAUTION

- Inspect the Oxygen Sensor and Diverter Fitting for visual damage or electrolyte leakage before use. DO NOT USE if damaged.
- Use ONLY an Oxygen Sensor specified by Precision Medical, Inc.
- The Oxygen Sensor should not be used in the presence of flammable anesthetics such as Diethyl Ether or Cyclopropane.

CAUTION

- DO NOT attempt to open or repair the Oxygen Sensor.
- The Sensor electrolyte is corrosive, and contains lead.
- DO NOT let it come in contact with the skin. If it does, flush affected area with water.
- Check the Sensor regularly for leaks. If the Sensor is leaking, replace with NEW Sensor. Leaking or used Sensors should be handled and disposed of in accordance with local regulations.
- An MSDS is available from Precision Medical, Inc.
- If the Oxygen Sensor is used in breathing circuits, the
- Diverter must be attached to the Sensor and must be used with the Tee Adapter.
- The Oxygen Sensor must be installed before the Oxygen
- Monitor can be operated.
- Screw the Diverter to the bottom of the Oxygen Sensor, tighten until snug.
- 2. If using the Tee Adapter, attach to the Diverter.
- 3. Insert the one end of the Coiled Cable into the top of the Sensor, and secure by tightening the Locking Ring, until snug.
- 4. Insert the other end of the Coiled Cable into the Sensor Cable Connection located on the right side of the Oxygen Monitor. Secure it in place by tightening the Locking Ring, until snug.
- 5. Wait approximately 20 minutes for the NEW Sensor to stabilize to the environment.
- 6. Calibrate the Oxygen Monitor with the NEW Sensor.

- 1. Calibrate the Oxygen Monitor before each use, and when replacing the Oxygen Sensor or the batteries.
- The Precision Medical Oxygen Monitor can only be calibrated accurately using 100% Oxygen or 20.9% Oxygen (Room Air). Using any other concentration will result in inaccurate readings.
- 3. Air calibration is not recommended unless the Sensor can be exposed to a known source of clean air. Hospital room air is often enriched with excess oxygen.
- 4. Calibrate the Oxygen Monitor at a pressure and flow similar to your clinical application.
- 5. Before calibrating the Oxygen Monitor, the oxygen concentration readout should be stable and not drifting more than 0.2%.
- DO NOT calibrate the Oxygen Monitor in humidified gas, as water vapor makes the oxygen concentration appear lower than the actual value.

CALIBRATION

- Place the Sensor with Diverter and Plastic Tee attached into the gas stream of 100% USP Oxygen or room air. The highest accuracy is achieved when using 100% USP Oxygen at a constant pressure and flow.
- 2. Wait at least 20 seconds or more for the oxygen to purge the line.
- 3. Turn the Oxygen Monitor "ON" by pressing the OPOWER key.
- 4. Let the oxygen concentration display stabilize, the readout should not drift more than 0.2%.
- 5. Press the keys to UNLOCK the keys.
- 6. Press the CAL key. The display will show "CAL @ Air" or "CAL @ 100" oxygen. When "DONE" appears, the calibration is complete. The Oxygen Concentration will be displayed in a gas percent value. Press LOCK/UNLOCK to save the calibration data. If no keys are pressed within 3 seconds, the setting will be saved, and the keypad will be locked.
- 7. Remove the Oxygen Sensor from the oxygen supply and confirm that the display reads between 19-22% Oxygen in room air.

EFFECTS OF TEMPERATURE:

To minimize temperature effects:

- 1. In a breathing circuit, place the Oxygen Sensor upstream of the heater.
- 2. Allow time for the Oxygen Sensor to stabilize to its new room temperature.
- 3. Perform the calibration procedure at a temperature close to or similar to your clinical application.

EFFECTS OF HUMIDITY:

High Moisture levels will dilute the oxygen concentration, decreasing the concentration of oxygen being monitored by the Oxygen Sensor.

High humidity can cause condensation to collect on the Oxygen Sensor, obstructing the passages and reducing the effectiveness of the Oxygen Sensor.

M CAUTION

To reduce the effects of humidity on the Sensor:

- DO NOT USE the Oxygen Sensor in environments with greater than 95% humidity.
- Place the Oxygen Sensor upstream from the humidifier in a breathing circuit.

EFFECTS OF PRESSURE:



The Oxygen Monitor is no equipped with automatic barometric pressure compensation.

When the Oxygen Sensor is placed in a breathing circuit, the alternating "breathing" pressure cycles will be sensed as an increase in oxygen concentration. The concentration is not actually changing, but it appears to be due to the change in pressure.

The following recommendation is provided to reduce the chances of pressure causing false readings.

Calibrate the Precision Medical Oxygen Monitor using 100% Oxygen or room air at the same pressure and flow as the gas to be monitored.

EFFECTS OF ANESTHETIC GASES:

ANESTHETIC AGENT	TEST CONCENTRATION	Oxygen CONCENTRATION ERROR
Helium	50%, Balance Oxygen	0%
Nitrous Oxide	80%, Balance Oxygen	0%
Carbon Dioxide	10%, Balance Oxygen	0%
Halothane	4%	<1.5% Oxygen*
Enflurane	5%	<1.5% Oxygen*
Isoflurane	5%	<1.5% Oxygen*
Sevoflurane	5%	<1.5% Oxygen*
Desflurane	15%	<1.5% Oxygen*

Test mixture = 30% O_2 , balance 70% N_2O except where noted.

* Errors may vary based on concentrations and exposure times.

These results meet or exceed the requirements of ISO 7767 and DIN EN 12598.

CAUTION

The Oxygen Sensor should not be used in the presence of flammable anesthetics such as Diethyl Ether or Cyclopropane.

ALARMS

The Precision Medical Oxygen Monitor will store the HIGH/LOW alarm settings in memory after the Oxygen Monitor is turned "OFF".

The Oxygen Monitor is designed to prevent crossing of the HIGH/LOW alarm settings. The LOW alarm cannot be set above the HIGH alarm and the High alarm cannot be set below than the LOW alarm.

TO SET ALARM

- 1. With the Power key ON.
- 2. Press the LOCK/UNLOCK key.
- 3. To set the HIGH Alarm: Press the HIGH ALARM SET key once. Press the TUP and DOWN arrow keys until the desired value is displayed next to the Up arrow in the upper right corner of the display. Continuously pressing the arrow keys will move the value in increments of 5. Press the HIGH ALARM SET key to save the setting. Flashing Number indicates the Number can be changed. If no keys are pressed for 10 seconds, the setting will be saved and the Oxygen Monitor will revert to locked mode.
- 4. To set the LOW Alarm: Press the L LOW ALARM SET key once. Press the T UP and DOWN arrow keys until the desired value is displayed next to the Down arrow in the lower right corner of the display. Continuously pressing the arrow keys will move the value in increments of 5. Press the L LOW ALARM SET key to save the setting. Flashing Number indicates the Number can be changed. If no keys are pressed for 10 seconds, the setting will be saved and the Oxygen Monitor will revert to locked mode.

To set the LOW Alarm below 18%: Press the L LOW ALARM SET key once. Press the DOWN arrow key until 18% is displayed. Press and hold the LOCK/UNLOCK key down and press the DOWN arrow key to set the lower limit and then release LOCK/UNLOCK key.

- Lock the display by pressing the LOCK/UNLOCK key. 5.
- 6. To disable the HIGH Alarm, raise the HIGH Alarm setting above 100%. "---" will be displayed next to the Up arrow on the display. The LOW alarm will still function while the HIGH alarm is disabled.

ALARM SITUATION:

During a HIGH or LOW alarm.

- 1. Triple pulse alarm sounds.
- 2. LED will flash.
- 3. Alarm Low/High set point will flash.
- UP 1 or DOWN 4 Arrow will turn dark.

Pressing the Alarm Silent key will deactivate the audible alarm for 120 seconds. If the alarm condition exists after 120 seconds, the alarm will sound again.

CLEANING



CAUTION

- DO NOT steam autoclave.
- DO NOT immerse the Oxygen Monitor into any liquid.
- DO NOT use any strong solvent or abrasive cleaners.
- DO NOT allow any liquid to enter the Oxygen Monitor or the Oxygen Sensor; this will damage the Oxygen Monitor or Oxygen Sensor and will void the Warranty.
- 1. Disconnect all connections before cleaning.
- Clean exterior surfaces of the Oxygen Monitor and Coiled Cable with a cloth dampened with mild detergent and water.
- 3. Wipe dry with a clean cloth.

MAINTENANCE

SENSOR REPLACEMENT

Reference "SENSOR INSTALLATION"



CAUTION

Sensor Replacement must be performed by a Qualified Medical Personnel.

BATTERY REPLACEMENT

Replace batteries when (Low Battery) is displayed.

Reference "BATTERY INSTALLATION".

RETURNS

Returned products require a Returned Goods Authorization (RGA) number, contact Precision Medical, Inc. All returns must be packaged in sealed containers to prevent damage. Precision Medical, Inc. will not be responsible for goods damaged in transit. Refer to Precision Medical, Inc. Return Policy available on the Internet, www.precisionmedical.com.

DISPOSAL INSTRUCTIONS

The Oxygen Monitor may contain electrical components that are hazardous to the environment. DO NOT dispose device into standard trash.

The Oxygen Monitor contains internal batteries. Batteries contain materials which can contaminate the environment when improperly disposed of.

The Oxygen Sensor contains lead. DO NOT dispose sensor into standard trash. Dispose in accordance with the local regulations.

Contact your local waste management for disposal of Electronic Equipment.



TROUBLESHOOTING

If the Oxygen Monitor fails to function, consult the Troubleshooting Guide. If the problem cannot be solved by using Troubleshooting Guide, consult your Provider.

Problem	Probable Cause	Remedy
Low Battery Indicator is displayed with a 30 second chirp alarm	Battery voltage too low	Replace with 4 NEW AA alkaline batteries

Problem	Probable Cause	Remedy
Check Sensor annears	 Cable connections are not secure Oxygen Sensor not functioning 	Make sure cable connections are secure and locking rings are tight
Check Sensor appears on display with a continuing pulsing alarm	 Using Oxygen Sensor other than Precision Medical 	Replace with New Precision Medical Oxygen Sensor
	Oxygen Sensor	Attach New Precision Medical Oxygen Sensor
New Oxygen Sensor responds slowly or seems to drift	Oxygen Sensor has NOT temperature stabilized	Wait approximately 20 minutes for Oxygen Sensor to stabilize with the environment, and then recalibrate the Oxygen Monitor
Oxygen Sensor does	Condensation on the Oxygen Sensor	Remove Condensation
not react to changes in oxygen concentration	Non functioning Oxygen Sensor	Replace with New Precision Medical Oxygen Sensor
Triple Pulse Alarm and flashing LED	 Oxygen readings are outside the High/Low Alarm limits 	Adjust the High/Low Alarm setting to be above/below the oxygen value being
	Loss of Air or Oxygen Supply	displayed 2. Reconnect the Air or Oxygen Supply
Keys inoperable (Power ON)	The keypad is Locked	Unlock the keypad
No Display/ LCD screen will not power ON	 Dead Batteries Battery installed incorrectly 	Check and replace with 4 New AA alkaline batteries Check that batteries
·		are installed in the proper position (+/-)
"SERVICE NEED" appears on the display	Electronic malfunction	Oxygen Monitor must be serviced

Problem	Probable Cause	Remedy
"CAL FAIL" appears on the display	 Improper or wrong Oxygen Sensor 	Recalibrate the Oxygen Monitor
	Improper Air / Oxygen source	Check the Air / Oxygen source
	Non functioning Oxygen Sensor	Replace with New Precision Medical Oxygen Sensor

REPLACEMENT PARTS

Description	Part #
User Manual	505127
Precision Medical Oxygen Sensor with Diverter	504877
Tee Adaptor	505126
Extendible Cable	504937
AA Alkaline Battery (4 Pack)	505124-4
Rubber Feet (4)	505122-4
Battery Cover Assembly	506369
V Block	505010
Diverter	505344

ACCESSORIES

Description	Part #
Monitor Wall Mount Bracket	505189
Monitor Vertical Pole Mount Clamp	505013
Monitor Horizontal Pole Mount Clamp	505014
Dove tail Bracket	505012
Dove tail Bracket Screw	505712

Orders for replacement parts should include the part number, if available and the model and serial number of the instrument for which the parts are intended.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

Precision Medical, Inc. warrants that the Oxygen Monitor, (the Product), will be free of defects in workmanship and/or material for the following period:

Two (2) years from shipment.

Should any failure to conform to this warranty appear within the applicable period, Precision Medical, Inc. shall, upon written notification thereof (received by Precision Medical, Inc. within 30 days of the customer's discovery of the alleged defect), along with return of the Product at the customer's expense and substantiation that the goods have been stored, installed, maintained and operated in accordance with Precision Medical, Inc.'s instructions and standard industry practice, and that no modifications, substitutions, or alterations have been made to the goods, correct such defect by repair or replacement (at Precision Medical, Inc.'s option) at its own expense.

Precision Medical, Inc. Warrants the 504877 Oxygen Sensor included with the PM5900 Oxygen Monitor to be free from defects in material and workmanship for a period of sixteen (16) months, from date of shipment. Should any failure to conform to this warranty appear within the applicable period, Precision Medical, Inc. shall, upon written notification thereof (received by Precision Medical, Inc. within 30 days of the customer's discovery of the alleged defect), along with return of the sensor at the customer's expense and substantiation that the sensor has been stored, installed, maintained and operated in accordance with Precision Medical, Inc.'s instructions and standard industry practice, and that no modifications, substitutions, or alterations have been made to the sensor, correct such defect by repair or replacement (at Precision Medical, Inc.'s option) at its own expense. Should a sensor require repair or replacement due to said defects, the sensor is warranted only for the remainder of the original sensor warranty period. A sensor shall not be considered defective for failure to function beyond its normal estimated consumption capacity/rates, and this warranty does not cover normal wear due to consumption beyond the sensor's estimated O2% hours.

ORAL STATEMENTS DO NOT CONSTITUTE WARRANTIES.

The representatives of Precision Medical, Inc. Or any retailers are not authorized to make oral warranties about the merchandise described in this warranty, and any such statements shall not be relied upon and are not part of the contract for sale. Thus, this writing is a final, complete and exclusive statement of the terms of the warranty for the products covered by the applicable contract.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, WHETHER EXPRESS OR IMPLIED.

Precision Medical, Inc. shall not under any circumstances be liable for special, incidental or consequential damages including but not limited to lost profits, lost sales, or injury to person or property. Correction of non-conformities as provided above shall constitute fulfillment of all liabilities of Precision Medical, Inc. whether based on contract, negligence, strict tort or otherwise. Precision Medical, Inc. reserves the right to discontinue manufacture of any product or change product materials, designs, or specifications without notice.

Precision Medical, Inc. reserves the right to correct clerical or typographical errors without penalty.

505127 Rev 9 12/13 Printed in USA